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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/458,248	12/09/1999	GEORGE NICHOLS	02103-365001	8624

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FISH & RICHARDSON PC  
225 FRANKLIN ST  
BOSTON, MA 02110

EXAMINER

NI, SUHAN

ART UNIT PAPER NUMBER

2643

18

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/458,248

**Applicant(s)**

NICHOLS ET AL.

**Examiner**

Suhan Ni

**Art Unit**

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This communication is responsive to the response filed 01/12/2004.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) The invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-3, 5-6, 8, 10-14, 16-17 and 20-24 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Doug Newcomb (Car Stereo, Oct. 1999).

Regarding claim 1, Newcomb discloses an acoustic assembly (page 23), comprising: an electro-acoustical transducer (tweeter); and an acoustic element (waveguide or grille), separate from said transducer, and structured to improve the acoustic performance of said transducer; and said acoustic assembly designed and constructed to be an element of a vehicle pillar (A-pillar) as claimed.

Regarding claims 2-3, Newcomb further discloses the acoustic assembly, wherein the acoustic element is a two-ended waveguide (page 23).

Regarding claims 5-6, Newcomb further discloses the acoustic assembly, wherein the acoustic assembly has a ported acoustic volume (page 23).

Regarding claim 8, Newcomb further discloses the acoustic assembly, wherein the acoustic assembly has a sealed acoustic volume (page 23).

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Regarding claim 10, Newcomb further discloses the acoustic assembly, wherein the vehicle pillar is an A-pillar (page 23).

Regarding claim 11, Newcomb discloses a structural automobile pillar containing an acoustic assembly (page 23), said acoustic assembly comprising: an electro-acoustical driver (tweeter); and an acoustic element (waveguide or grille) as claimed.

Regarding claim 12, Newcomb further discloses the automobile pillar, wherein the vehicle pillar is an A-pillar (page 23).

Regarding claims 13-14, Newcomb further discloses the automobile pillar, wherein the acoustic element is a two-ended waveguide (page 23).

Regarding claims 16-17, Newcomb further discloses the automobile pillar, wherein the acoustic assembly has a ported acoustic volume (page 23).

Regarding claim 20, Newcomb discloses an acoustic assembly (page 23), comprising: an electroacoustical transducer (Figs.); and an acoustic element (wave guide or grille), separate from said transducer, and structured to improve the acoustic performance of said electroacoustical transducer as claimed.

Regarding claim 21, Newcomb discloses a trim element for covering a vehicle pillar, said trim element forming an acoustic assembly (page 23).

Regarding claim 22, Newcomb further discloses the trim element, wherein the acoustic element is a two-ended waveguide (page 23).

Regarding claim 23, Newcomb further discloses the trim element, wherein the acoustic assembly is an acoustic volume (page 23).

Regarding claim 24, Newcomb further discloses the trim element, wherein the vehicle pillar is an A-pillar (page 23).

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3. Claims 25, 27 and 29 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Atkinson (US-1,930,577).

Regarding claim 25, Atkinson discloses an automobile pillar (Fig. 1) comprising a plurality of sound sources (11, 15, 20).

Regarding claim 27, Atkinson further discloses the automobile pillar, wherein a first of the sound sources comprises a first electroacoustic transducer (11) and a second of the sound sources comprises a port opening (15, 20) as claimed.

Regarding claim 29, Atkinson further discloses the automobile pillar, wherein said plurality of sound sources comprises an electroacoustic transducer (11) and a waveguide opening (15, 20) as claimed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 7, 9, 15 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doug Newcomb (Car Stereo, Oct. 1999).

Regarding claim 4, Newcomb does not clearly show that the acoustic element is a single-ended waveguide as claimed. Since providing a single-ended waveguide for an acoustic transducer is well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to provide the single-ended waveguide for the acoustic assembly, in order to provide an acoustic assembly having more directional sound features.

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Regarding claims 7 and 9, Newcomb does not clearly show a second electroacoustical transducer as claimed. Since providing more than one speaker for an acoustic assembly is well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to provide a desirable number of speakers, such as two for the acoustic assembly, in order to provide a multi-channel surrounding sound for users.

Regarding claim 15, Newcomb does not clearly show that the acoustic element is a single-ended waveguide as claimed. Since providing a single-ended waveguide for an acoustic transducer is well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to provide the single-ended waveguide for the acoustic assembly, in order to provide an acoustic assembly having more directional sound features.

Regarding claim 18, Newcomb discloses a structural automobile pillar containing an acoustic assembly (page 23), said acoustic assembly comprising: an electro-acoustical driver; and an acoustic element, wherein the pillar is an A-pillar (page 23), and the acoustic assembly is a ported acoustic volume (page 23). But Newcomb does not clearly show a second electroacoustical transducer as claimed. Since providing more than one speaker for an acoustic assembly is well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to provide a desirable number of speakers, such as two for the acoustic assembly, in order to provide a multi-channel surrounding sound for users.

Regarding claim 19, Newcomb further discloses the acoustic assembly, wherein the acoustic assembly has a sealed acoustic volume (page 23).

5. Claim 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson (US-1,930,577).

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Regarding claims 26 and 28, Atkinson does not clearly show a second electroacoustical transducer as claimed. Since providing more than one speaker for an acoustic assembly is well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to provide a desirable number of speakers, such as two for the acoustic assembly, in order to provide an acoustic assembly with desirable frequency coverage range.

***Response to Amendment***

6. Applicant's arguments dated 01/12/2004 have been fully considered, but they are not deemed to be persuasive.

The cited reference (Doug Newcomb, Car Stereo, Oct. 1999) does clearly show all the limitation as claimed. For example:

Regarding claim 1, Newcomb discloses an acoustic assembly (page 23), comprising: an electro-acoustical transducer (tweeter); and an acoustic element (waveguide or grille), separate from said transducer, and structured to improve the acoustic performance (sending acoustic output to different direction or making the assembly more durable) of said transducer; and said acoustic assembly designed and constructed to be an element of a vehicle pillar (A-pillar) as claimed. (please all see the notation of the pictures: SINKING FEELING: ...)

Regarding claim 11, Newcomb discloses a structural automobile pillar containing an acoustic assembly (page 23), said acoustic assembly comprising: an electro-acoustical driver (tweeter); and an acoustic element (waveguide or grille) as claimed.

Regarding claim 20, Newcomb discloses an acoustic assembly (page 23), comprising: an electroacoustical transducer (tweeter); and an acoustic element (wave guide or grille), separate from said transducer, and structured to improve the acoustic performance of said

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electroacoustical transducer (sending acoustic output to different direction or making the assembly more durable) as claimed.

Regarding claim 21, Newcomb discloses a trim element for covering a vehicle pillar, said trim element forming an acoustic assembly (page 23).

Regarding claim 25, Atkinson discloses an automobile pillar (Fig. 1, pillar - upright support for a superstructure) comprising a plurality of sound sources (11, 15, 20). The venting holes (20) are balancing acoustic pressure and emitting sound as well.

Regarding claim 18, the applicants argue no motivation to combine the references. It is not necessary that the references actually suggest, expressly or in so many words the changes or improvements that applicants have made. The test for combining references is what the references as whole would have suggested to one of ordinary skilled in the art. **In re Sheckler, 168 USPQ 716 (CCPA 1971); In re Mlaughlin 170 USPQ 209 (CCPA 1971); In re Young 159 USPQ 715 (CCPA 1968).**

### *Conclusion*

7. **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

8. Any response to this final action should be mailed to:



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**Commissioner of Patents and Trademarks  
Washington, D.C. 20231**

Or faxed to:

**(703) 308-9051**, (for formal communications; please mark "EXPEDITED  
PROCEDURE"), or

**(703) 305-9508**, (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")


Hand-delivered responses should be brought to:

**Receptionist, Sixth Floor,  
Crystal Park II,  
2121 Crystal Drive,  
Arlington, Virginia 22202**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Suhan Ni** whose telephone number is **(703)-308-9322**, and the number for fax machine is **(703)-305-9508**. The examiner can normally be reached on Monday through Thursday from 9:00 am to 7:30 pm. If it is necessary, the examiner's supervisor, **Curtis Kuntz**, can be reached at **(703) 305-4708**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is **(703) 305-3900**.

Suhan Ni  
Primary Examiner  
Art Unit 2643  
USPTO

  
SUHAN NI  
PATENT EXAMINER

March 18, 2004